

Date: Tuesday, 3/18/2008 3:58:48 PM  
User: Kim Johnston

# Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : BLADE FITTING
Job Number : 38100	
Estimate Number : 12300	
P.O. Number :	Part Number : D3488042
This Issue : 3/18/2008 S.O. No. :	Drawing Number : D3488 / DSK101
Prsht Rev. : NC	Project Number : N/A
First Issue : / / Type : MACHINED PARTS	Drawing Revision : B / D
Previous Run : 36235	Material :
Written By :	Due Date : 4/15/2008 Qty: 10 Um: Each
Checked & Approved By : <u>8080318</u>	
Comment : Est Rev:A New Issue 06-02-28 JLM	
Est Rev:B As per Rev B 06-03-30 JLM	

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	D6103003	alum billet
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 12.0000 Each(s)

Alluminum Round Billet D6103-003

Batch: 38101

20 08/04/15

2.0	MORI SEIKI	MORI SEIKI CNC LATHE LARGE
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P10

Comment: MORI SEIKI CNC LATHE LARGE

1-Turn as per Dwg DSK 101 & Folio FA627

2-Deburr

20 08/04/15

3.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
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Comment: INSPECT PARTS AS THEY COME OFF MACHINE

20 08/04/15

8

4.0	HAAS1	HAAS CNC VERTICAL MACHINING #1
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Comment: HAAS CNC VERTICAL MACHINING #1

1-Machine as per Folio FA627 & Dwg D3488

2-Deburr

31 08/05/12

5.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
-----	-----	--



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

31 08/05/12

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3488-042 PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes (No) DQA: D Date: 08/05/16  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR: <u>38100</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
<u>08/04/24</u>	<u># 2.0</u>	<u>two (2) Parts have</u> <u>large and deep groves</u> <u>cut into the inside bore</u> <u>Re. It was used as a</u>	<u>[Signature]</u>	<u>Scrap Part that was</u> <u>used for set up at</u> <u>Doson Qty <u>(X1)</u></u> <u>no replace</u>	<u>RP</u> <u>08/04/24</u>	<u>[Signature]</u> <u>08/04/24</u>	<u>[Signature]</u>	<u>S</u> <u>08/04/24</u>
		<u>set up for Doson, its</u> <u>completely scrap.</u> <u>Re. chips was caught around</u> <u>Drill / Boring Bar Daring machine.</u>	<u>[Signature]</u> <u>08/04/24</u>	<u>Scrap and Destroy</u> <u>no replace Qty <u>(X0)</u></u> <u>ADD retract to Drill</u> <u>Belts counter Boring</u>	<u>RP</u> <u>08/04/24</u>	<u>[Signature]</u> <u>08/04/24</u>	<u>[Signature]</u> <u>08/04/24</u>	<u>S</u> <u>08/04/24</u>

NOTE: Date & initial all entries

Date: Tuesday, 3/18/2008 3:58:49 PM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BLADE FITTING

Job Number: 38100

Part Number: D3488042

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC8

SECOND CHECK



Comment: SECOND CHECK

24 08/29/14

7.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

27/FR 08/0

30 min

8.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

M 107925

322.8  
#3 B38100  
#4 D3488042

9.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

BR

08-05-15

10.0

ALS71032225

INSERT



Comment: Qty.: 4.0000 Each(s)/Unit Total : 48.0000 Each(s)

Pick:

Qty Part Number Description Batch

4 ALS7-1032-225 Insert

M100489

91

11.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Install Inserts as per Dwg D3488

91

08-05-15

(X 8)

12.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

5 08/05/15

(X 8)

13.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: FP-20

91

08-05-15

(X 8)

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Date: Tuesday, 3/18/2008 3:58:49 PM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BLADE FITTING

Job Number: 38100

Part Number: D3488042

Job Number:



Seq. #:

Machine Or Operation:

Description :

14.0

QC21

FINAL INSPECTION/W/O RELEASE



08/05/16

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



MF 08-05-15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	38100
<b>Description:</b> Blade Fitting, RH		<b>Part Number:</b>	D3488-2
<b>Inspection Dwg:</b> D3488 <b>Rev:</b> B		<b>Page 1 of 1</b>	

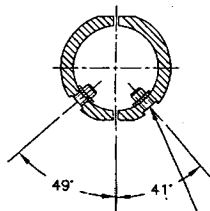
### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article      ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.125	+/-0.010	.127	✓			
2.620	+/-0.010	2.620	✓			
0.793	+/-0.010	.802	✓			
1.351	+/-0.010	1.342	✓			
1.317	+/-0.010	1.316	✓			
90°	+/-0.1°	90°	✓			
1.802	+/-0.010	1.804	✓			
Ø0.508	+0.006/-0.001	Ø.570	✓			
R0.062	+/-0.010	R.062	✓			
1.500	+/-0.010	1.500	✓			
8.000	+0.030/-0.000	8.015	✓			
11.18	+/-0.030	11.180	✓			
Ø0.484	+0.005/-0.001	.4835	✓			
1.180	+/-0.010	1.18	✓			
3.150	+/-0.010	3.150	✓			
3.070	+/-0.010	3.07	✓			
0.590	+/-0.010	.595	✓			
0.125	+/-0.010	.125	✓			
1.005	+/-0.010	1.005	✓			
3.500	+/-0.010	3.500	✓			
Ø0.297	+0.005/-0.000	.300	✓			
Ø0.430	+/-0.010	.430	✓			
0.100	+/-0.010	.100	✓			

<b>Measured by:</b> EP/ML	<b>Audited by:</b> DJP	<b>Prototype Approval:</b>	N/A
<b>Date:</b> 08/05/12	<b>Date:</b> 08/05/12	<b>Date:</b>	N/A

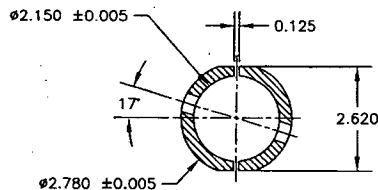
Rev	Date	Change	Revised by	Approved
A	06.03.31	New Issue	KJ/JLM	[Signature]



SECTION B-B

Ø0.297  
BORE Ø0.430 x 0.100  
INSTALL ALS4-1032-225 (OR AKS4-1032-225  
OR ALS7-1032-225 OR AKS7-1032-225)  
INSERTS AFTER FINISH  
(2 PLACES)

4



SECTION A-A

D3488-041/-042 BLADE FITTING ASSEMBLY PARTS LIST

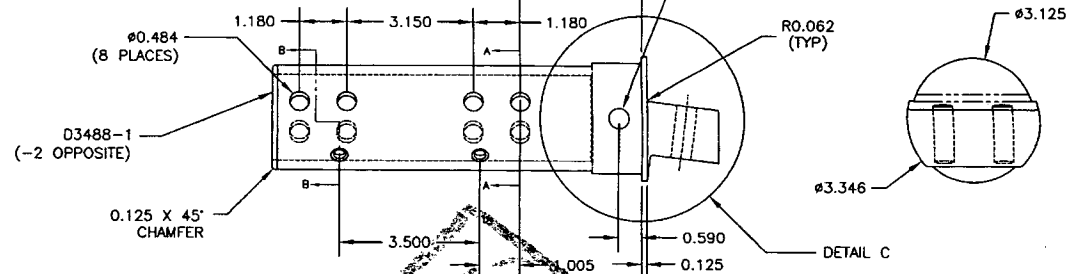
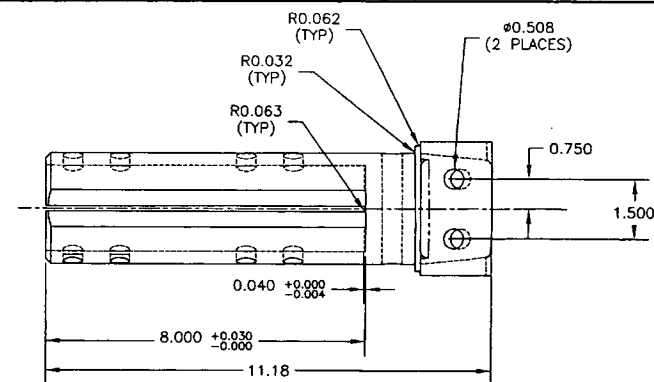
QTY -041	QTY -042	PART NUMBER	DESCRIPTION
X		D3488-041	BLADE FITTING ASSEMBLY (LH)
	X	D3488-042	BLADE FITTING ASSEMBLY (RH)
1		D3488-1	BLADE FITTING (LH)
	1	D3488-2	BLADE FITTING (RH)
4	4	ALS4-1032-225 or AKS4-1032-225 or ALS7-1032-225 or AKS7-1032-225	INSERT

D3488-041/-042 BLADE FITTING

- MATERIAL: MAKE D3488-1/-2 FROM ALUMINUM 7075-T7351 ROUND BAR  
PER QQ-A-225/9  
(REF. DART MATERIAL SPEC M7075T73R)  
ACID ETCH, ALODINE PER DART QSI 005 4.1  
POWDER COAT WHITE (REF 4.3.5.1) PER DART QSI 005 4.3
- FINISH:
- BREAK UNMARKED SHARP EDGES 0.010 TO 0.020
- INSTALL INSERTS AFTER POWDER COAT
- ALL DIMENSIONS ARE IN INCHES
- TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

NO. 38100  
WORK ORDER  
WITHOUT NOTICE  
SUBJECT TO AMENDMENT  
CONTROLLED COPY  
ENGINEERING  
RETURN TO  
SHOP COPY

DETAIL C



D3488-041 SHOWN (D3488-042 OPPOSITE)

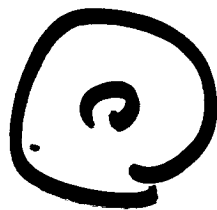
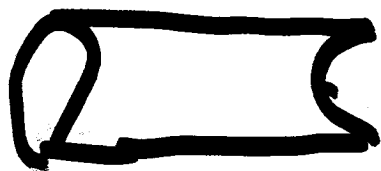
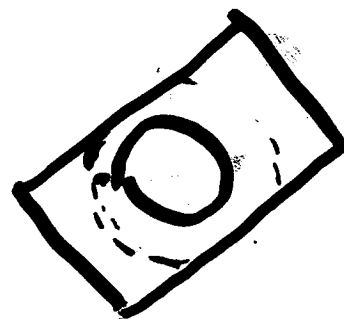
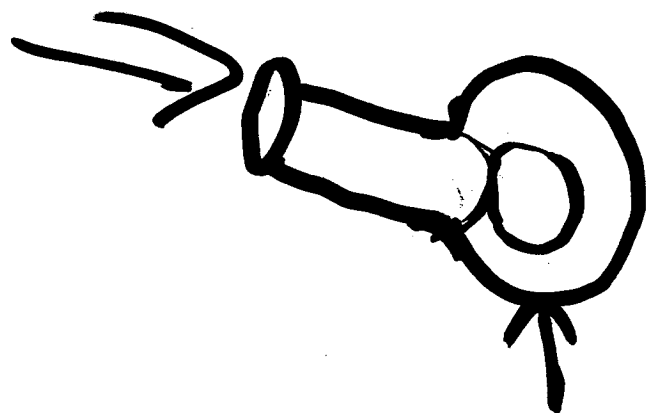
RELEASED  
06-05-07 PH  
PER DS  
ECN #789

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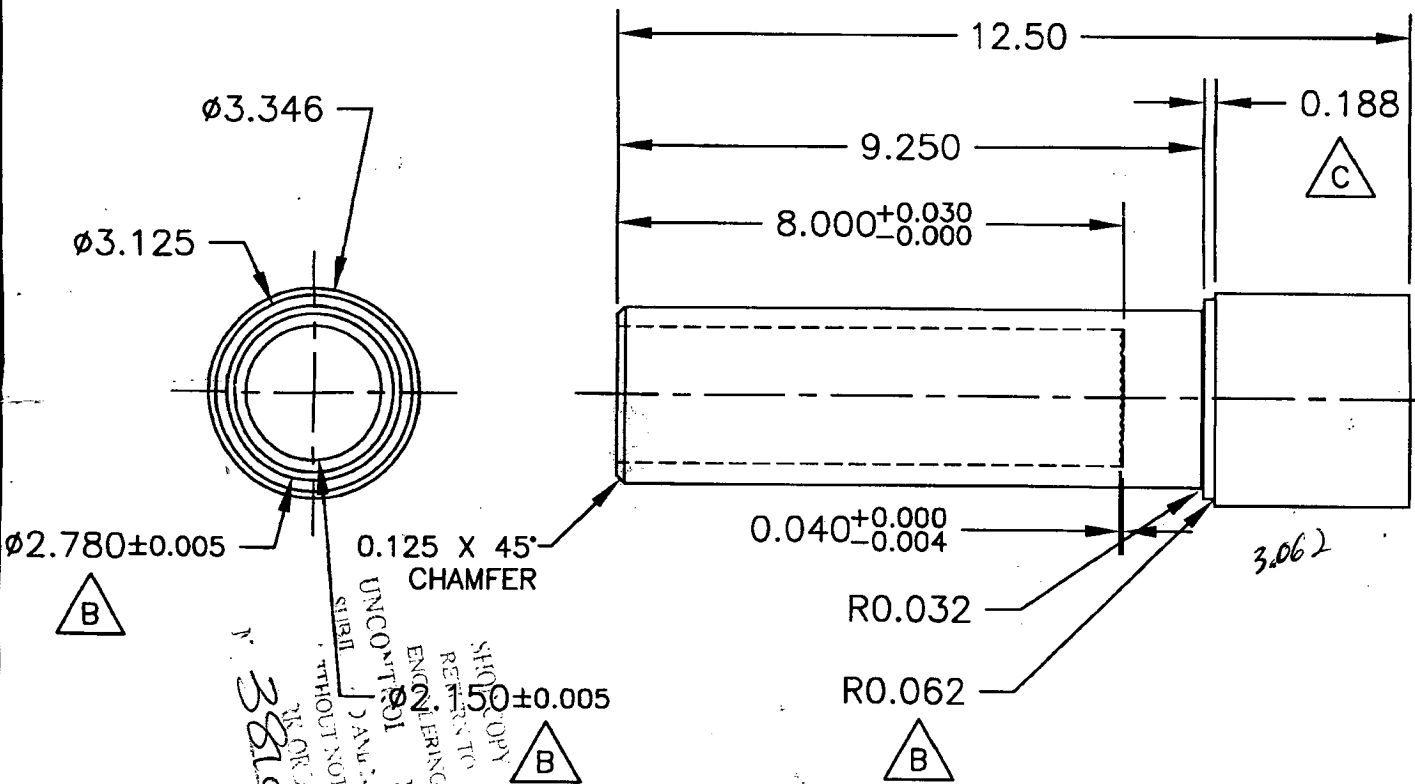
B	06.03.15	CHANGE THICKNESS
A	05.12.20	NEW ISSUE
DESIGN PH	DRAWN BY PH	<b>DART</b> DART AEROSPACE USA, INC. PORT HADLOCK, MA
CHECKED A	APPROVED A	DRAWING NO. D3488
DATE 06.03.15	TITLE BLADE FITTING	REV. B SHEET 1 OF 1 SCALE 1:3





# PART

DESIGN	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
DRAWN BY PH	REV. D	
CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. DSK 101 SHEET 1 OF 1
DATE 06.05.09	TITLE D3488-1/-2 TURNING DETAIL 1:3	SCALE
A	05.12.21	NEW ISSUE
B	06.03.02	ADD TOLERANCES AND RADIUS
C	06.04.17	0.188 WAS 0.125
D	06.05.09	REMOVE DIAMETER FOR CHAMFER



DSK 101

- 1) MATERIAL: MAKE FROM ALUMINUM 7075-T7351 ROUND BAR PER QQ-A-225/9  
(REF. DART MATERIAL SPEC M7075T73R)
- 2) FINISH: NONE
- 3) BREAK UNMARKED SHARP EDGES 0.010 TO 0.020
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

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